

## **REMARKS**

This Preliminary Amendment has been prepared in accordance with 37 C.F.R. §1.173, and in further accordance with instructions by Mr. Kenneth Schor, Senior Legal Advisor, Office of Patent Legal Administration, of the United States Patent and Trademark Office, as conveyed by Mr. Schor to an associate of the undersigned, Joseph Agostino, Esq., Registration No. 51,191, during a telephone conversation between them on October 13, 2003. In accordance with 37 C.F.R. §1.173(c), the status of all of the patent claims and all of the claims added hereunder as of the date of this Preliminary Amendment is as follows:

Claims 1-39 were granted under the subject Patent.

Claims 1-9 and 22-32 have been amended herein.

Claims 40-57 have been added herein.

In further accordance with 37 C.F.R. §1.173(c), an explanation of the support in the disclosure of the subject Patent for each claim amendment follows.

With respect to Claim 1, Lines 2 and 9 thereof have been amended to delete the phrase "a defect in or" in each instance, resulting in Claim 1 being directed to an apparatus for detecting the presence and characteristics of ice on a structure. Support for this particular amendment is found in the original Patent claims and in the specification of the Patent at Col. 4, Lines 7-51, and Col. 9, Line 39 through Col. 10, Line 3. In addition, Lines 3 and 4 of Claim 1 have been amended to provide for first and second transmitter means for transmitting a low frequency signal and high frequency probe signal, respectively, to a structure in substitution for "creating and delivering means." Support for this particular amendment is found in the specification of the Patent at Col. 7, Lines 31-39, and in Figures 4, 7 and 10. The remaining amendments

contained in Claim 1 are editorial in nature and have been presented for the purpose of making Claim 1 more comprehensible.

With respect to Claim 2, Line 3 thereof has been amended to delete the phrase “and receiver means.” Support for this particular amendment is found in the specification of the Patent at Col. 5, Lines 1-3. The remaining amendments contained in Claim 2 are editorial in nature and have been presented for the purpose of making Claim 2 more comprehensible.

With respect to Claim 3, Line 2 thereof has been amended to delete the phrase “a defect in or,” resulting in Claim 3 being directed to a method for detecting the presence and characteristics of ice on a structure. Support for this particular amendment is found in the original Patent claims and in the specification of the Patent at Col. 4, Lines 7-51 and Col. 9, Line 39 through Col. 10, Line 3. The remaining amendments contained in Claim 3 are editorial in nature and have been presented for the purpose of making Claim 3 more comprehensible.

With respect to Claim 4, Line 4 thereof has been amended to delete the phrase “a point of delivery of the.” Support for this particular amendment is found in the specification of the Patent at Col. 5, Lines 1-7, and Col. 8, Lines 1-5. The remaining amendments contained in Claim 5 are editorial in nature and have been presented for the purpose of making Claim 5 more comprehensible.

With respect to Claim 5, Lines 2 and 9 thereof has been amended to delete the phrase “a defect in or,” resulting in Claim 5 being directed to a method for detecting the presence and characteristics of ice on a structure. Support for this particular amendment is found in the original Patent claims and in the specification of the Patent at Col. 4, Lines 7-51, and Col. 9, Lines 52-63. The remaining amendments contained in

Claim 5 are editorial in nature and have been presented for the purpose of making Claim 5 more comprehensible.

With respect to amended Claim 6, Line 1 thereof has been amended to add the clause “between said ultrasonic probe signal and said low frequency vibration signal” in order provide proper antecedent basis for the term “interaction.” The remaining amendments contained in Claim 6 are editorial in nature and have been presented for the purpose of making Claim 6 more comprehensible.

With respect to Claim 7, Line 2 thereof has been amended to add the phrase “of said ultrasonic probe signal” in order provide proper antecedent basis for the term “modulation.” The remaining amendments contained in Claim 7 are editorial in nature and have been presented for the purpose of making Claim 7 more comprehensible.

With respect to Claim 8, Line 2 thereof has been amended to delete the phrase “a defect in or,” resulting in Claim 8 being directed to a method for detecting the presence and characteristics of ice on a structure. Support for this particular amendment is found in the original Patent claims and in the specification of the Patent at Col. 4, Lines 32-37, and Col. 9, Lines 52-63.

With respect to Claim 9, the amendments thereof are editorial in nature and have been presented for the purpose of making Claim 9 more comprehensible.

With respect to Claim 22, Lines 1 and 2 thereof have been amended in order provide proper antecedent basis for the phrases “second transmitter means” and “receiver means.” The remaining amendments contained in Claim 22 are editorial in nature and have been presented for the purpose of making the claim more comprehensible.

With respect to Claim 23, Line 2 thereof has been amended in order to provide proper antecedent basis for the terms "transmitter" and "receiver." The remaining amendments contained in Claim 23 are editorial in nature and have been presented for the purpose of making the claim more comprehensible.

With respect to Claim 24, Lines 1 and 2 have been amended in order to provide proper antecedent basis for the terms "transmitter" and "receiver." The remaining amendments contained in Claim 24 are editorial in nature and have been presented for the purpose of making the claim more comprehensible.

With respect to Claim 25, Lines 3 and 6 have been amended in order to provide proper antecedent basis for the term "high frequency signal" The remaining amendments contained in Claim 25 are editorial in nature and have been presented for the purpose of making the claim more comprehensible.

With respect to Claims 26-29, the amendments to each are editorial in nature and have been presented for the purpose of making such claims more comprehensible.

With respect to Claim 30, Line 2 thereof has been amended to replace the phrase "comprises self-modulation" with the phrase "is implemented by structural vibration" in order to clarify the invention. Support for this particular amendment is found in the specification of the Patent at Col. 4, Lines 52-59. The remaining amendments contained in Claim 30 are editorial in nature and have been presented for the purpose of making the claim more comprehensible.

With respect to Claims 31 and 32, Line 1 of each claim has been amended in order provide proper antecedent basis for the phrase "said structural vibration." Support for these particular amendments is found in the specification of the Patent at Col. 4, Lines 52-59. The remaining amendments contained in Claims 31 and 32 are editorial in

nature and have been presented for the purpose of making each of the claims more comprehensible.

New Claim 40 incorporates the features contained in original patented Claims 1 and 2 relating to an apparatus for detecting the presence and characteristics of a defect in a structure. Support for this new claim is found in the original Patent claims and in the specification of the Patent at Col. 4, Lines 7-51, and Col. 5, Lines 1-3.

New Claims 41-43 correspond to amended Claims 22-24, respectively, except that each of new Claims 41-43 relate to an apparatus for detecting the presence and characteristics of a defect, rather than ice. Support for new Claims 41-43 is found in the original Patent claims and in the specification of the Patent at Col. 10, Lines 14-18 and Lines 26-39, and in Figure 10.

New Claim 44 incorporates the features contained in original patented Claims 3 and 4 relating to an apparatus for detecting the presence and characteristics of a defect, rather than ice. Support for this new claim is found in the original Patent claims and in the specification of the Patent at Col. 4, Lines 7-51, Col. 5, Lines 1-7, and Col. 8, Lines 1-5.

New Claim 45 corresponds to amended Claim 25, except that new Claim 45 relates to an apparatus for detecting the presence and characteristics of a defect, rather than ice. Support for new Claim 25 is found in the original Patent claims and in the specification of the Patent at Col. 6, Lines 1-12, Col. 7, Lines 47-50, and Col. 9, Lines 27-38.

Claims 46-53 correspond to amended Claims 26-32, respectively, except that each of new Claims 46-53 relates to a method for detecting the presence and

characteristics of a defect, rather than ice. Support for new Claims 46-53 is found in the original Patent claims and in the specification of the Patent at Col. 4, Lines 52-59.

New Claim 54 corresponds to amended Claim 5, except that new Claim 54 relates to a method for detecting the presence and characteristics of a defect, rather than ice. Support for new Claim 54 is found in the original Patent claims and in the specification of the Patent at Col. 4, Lines 15-19, and Col. 8, Lines 15-43.

New Claim 55 corresponds to amended Claim 6, except that new Claim 55 relates to a method for detecting the presence and characteristics of a defect, rather than ice. Support for new Claim 55 is found in the original Patent claims and in the specification of the Patent at Col. 4, Lines 15-19, and Col. 8, Lines 15-43.

New Claim 56 corresponds to amended Claim 7, except that new Claim 56 relates to a method for detecting the presence and characteristics of a defect, rather than ice. Support for new Claim 56 is found in the original Patent claims and in the specification of the Patent at Col. 7, Lines 1-13.

New Claim 57 corresponds to amended Claim 8, except that new Claim 57 relates to a method for detecting the presence and characteristics of a defect, rather than ice. Support for new Claim 57 is found in the original Patent claims and in the specification of the Patent at Col. 7, Lines 1-13.

New Claim 58 corresponds to amended Claim 9, except that new Claim 58 relates to a method for detecting the presence and characteristics of a defect, rather than ice. Support for new Claim 58 is found in the original Patent claims and in the specification of the Patent at Col. 4, Lines 52-59.

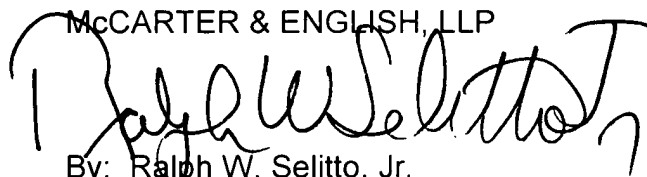
As demonstrated above, the amended claims and new claims presented herein recite features contained within the specification of the Patent and, therefore, these

amendments do not present any new matter. In view of the foregoing, Applicant's attorney respectfully requests the entry of the amendments contained herein. If the Examiner has any questions or comments concerning this Preliminary Amendment and/or the reissue application in general, the Examiner is invited to contact the applicant's attorney at the telephone number set forth below.

The Examiner is hereby authorized to charge Deposit Account No. 50-1402 the amount of \$676 required to cover the basic filing fee for the reissue application and the additional United States Patent and Trademark Office fees for the examination of eighteen (18) additional claims, in excess of the thirty-nine (39) total claims of the Patent and for the examination of three (3) additional independent claims in excess of ten (10) total independent claims of the Patent. The Applicant had previously paid for the examination of ten (10) total independent claims and thirty-nine (39) total claims. Should there be any additional fees due as a result of the filing of this reissue application or the submission of this Preliminary Amendment, the Examiner is hereby authorized to charge them to Deposit Account No. 50-1402.

Respectfully Submitted,

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